

DERWENT-ACC-NO: 1994-224133  
DERWENT-WEEK: 199427  
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TITLE: Conical thread joint for drilling string - has relief groove of nipple in its internal surface, and relief groove of coupling in its external surface

INVENTOR: CHERNOV, B A; NESTRUEV, L P ; OGLABYAK B YU,

PATENT-ASSIGNEE: IVANO-FRANK OIL GAS INST[IVAN]

PRIORITY-DATA: 1990SU-4791285 (February 14, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
SU 1810472 A1	April 23, 1993	N/A
004	E21B 017/042	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
SU 1810472A1	N/A	1990SU-4791285
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INT-CL\_(IPC): E21B017/02; E21B017/042

ABSTRACTED-PUB-NO: SU 1810472A

BASIC-ABSTRACT: The joint consists of a nipple (1) and a coupling (2), connected by a conical thread (3). There are relief grooves in the nipple and coupling, consisting of three adjacent sectors, the first (4,9) of which have varying dia., determined by specified equations. The second ones (5,8) are of constant dia., and the third ones (6,7) change in dia. gradually.

The nipple and coupling parts of the joint are screwed to each other at a set torque. When the joint is loaded by forces arising during drilling, the stresses acting on the loops of the thread are distributed

by the relief  
grooves of the shape described more uniformly between the  
threads. This  
reduces the stresses in the weakest cross sections.

USE/ADVANTAGE - For oil and gas industry. The joint has  
higher fatigue  
strength because of the improved distribution of the load  
between the thread  
loops. It therefore lasts longer.

CHOSEN-DRAWING: Dwg.1/3

TITLE-TERMS:  
CONICAL THREAD JOINT DRILL STRING RELIEF GROOVE NIPPLE  
INTERNAL SURFACE RELIEF  
GROOVE COUPLE EXTERNAL SURFACE

DERWENT-CLASS: H01 Q49

CPI-CODES: H01-B03C;

SECONDARY-ACC-NO:  
CPI Secondary Accession Numbers: C1994-102908  
Non-CPI Secondary Accession Numbers: N1994-176661

